

**ABSTRACT**

This invention relates to a method of inhibiting oxidation of a porous carbon-carbon composite comprising the steps of: (a) contacting the carbon-carbon composite with an oxidation inhibiting composition comprising phosphoric acid or an acid phosphate salt, at least one aluminum salt, and at least one additional metal salt, the oxidation inhibiting composition penetrating at least some of the pores of the carbon-carbon composite; and (b) heating the carbon-carbon composite at a temperature sufficient to form a deposit from the oxidation inhibiting composition within at least some of the penetrated pores of the carbon-carbon composite. The invention also relates to the foregoing oxidation inhibiting composition. The invention relates to carbon-carbon composites treated by the foregoing method.